REMARKS

Claims 1-5, and 7-12 were rejected as anticipated by Nazem. Claims 6, and 13-15 were rejected as unpatentable over Nazem in view of Rune. Applicant requests reconsideration.

Independent claims 1, 9, and 12 were amended to clearly recite that the process steps are executed at a proximal IPA. That is, according to claim 3, a proximal web cache. The examination recitation of the history of computer caches was elegant, but largely unnecessary.

The basis for allowance is and remains common to claim 1, 9, and 12 that include, among others, the unobvious limitation of "cross referencing at the proximal IPA in the forwarding table the stored destination URL identifier with the destination IPA".

The invention is directed to forming a proximal web cache that functions as both a forwarding table and a routing table, that includes both IPA and URL information. The cross-referenced URL-to-IPA forwarding table assists the proximal host to locate web content data stored in a network of web caches. The benefits of associating the URL with IPA enables one to have a self-contained content-based forwarding table in a proximal web cache for expedited retrieval of web content data.

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The present invention is new as a forwarding and routing table that associates URLs to distal IPAs for accessing web content data from the nearest minimum hop URL data that is stored in a web cache. The present invention does not merely route IPAs from a routing table for forwarding discrete packets, but rather forwards and routes the URL requests to near and far web caches and servers. Hence, the present invention is characterized by associating URL to distal IPA in a forwarding-routing table in a proximal web cache using URL requests that are for retrieving web content data from a distal but minimum hop web cache or a distal URL web server identified by both the IPA and URL. As such, and using the present invention, a web content data requests can be sent, through table association, to a minimum hop web cache for fast access, rather than to a far remote distal web server. By using the invention, a browser directly communicates with a web cache to access web content data without a DNS request.

The examination rejections upon Nezem is without merit. Nazem (col. 3, lines 1-5), describes the well-understood prior art by which a web browser normally accesses web content data offered by a web server using the Domain Name System (DNS) to cross-reference a web server name, contained within the URL, to a destination IPA. It is kindly but firmly requested that the examination take clear note that in Nazem the DNS is ITEM 108, the browser is ITEM 102, the distal servers are ITEMS 104 replicated, and there is no WEB cache in the Nezem system.

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Nezem is directed to the production of on-demand web content data. Nezem's system, comprising ITEMS 112, 114 and 116 generates web content data from data sources and user templates. Nezem has nothing to do with web caching. There is no reference in Nezem as to caching or storing the generated or produced web content data. Nezem is IRRELEVANT art.

The DNS service cross-references the web server names, previously extracted from the distal URL, to the web server IPA so that communication between the web browser and web server can be established and the web content data can be transmitted directly between them. The DNS service maintains cross-references from a web server name to a list of destination IPAs.

Nezem's use of the DNS does not cross-reference distal URLs or distal URL prefixes to a destination IPA. The browser extracts the web server host name from the URL, communicates the host name to DNS, and then the DNS translates host name to a host IPA, and communicates the host IPA back to the browser. In web parlance, a browser, a web cache, a web server, and a DNS are distinct processes. Yet, the examination seems to equate all these function with the claimed invention, as if the claimed web cache process is ipso facto the entire web complex.

Nazem (col. 3, lines 10-15) describes the modified operation of a DNS name server such that the web server IPA returned to the web browser is the same when more than one IPA is associated to a web server name. There exist a plurality of methods for selecting a

destination IPA from the destination IPA list. Nazem (col. 3, lines 10-15), describes a desired deterministic method using the requesting web browser IPA. The DNS service does not maintain cross-references from a URL or prefixed portion of a URL to a list of destination IPAs, and therefore does not teach or suggest a cross-referenced URL-to-IPA forwarding table. Therefore, neither does Nazem. Nazem (col. 2, 52-67, col. 3, 1-15) describes the operation of prior art on how a web browser determines how to communicate with a web server through DNS requests. Nazem is irrelevant to the present invention that uses a forwarding-routing table at a proximal IPA web cache that associates URL and IPA for intermediate web cache access.

The examination incorrectly cites Nazem (Col 3 line 1) to indicate that there is a cross-referencing, but as discussed, this is a DNS request which start by sending the web server name extracted from the URL and ends with the DNS service returning an IPA to the browser. The proximal IPA forwarding table stores cross-references between a distal URL and a destination IPA prior to the source sending a source URL identifier. Nazem does just the opposite, by sending a URL and receiving an IPA from the DNS. Storing the cross-reference between a distal URL or URL prefix and a destination IPA is a separate process independent of DNS that is not disclosed nor suggested in Nazem.

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The present inventions of claim 1, 9, and 12 are characterized as creating a forwarding-routing table in a web cache that associates URL and IPAs requests for enabling access to near minimum-hop web caches. Nazem does not provide for minimum hop web cache access nor does Nazem use a forwarding-routing table that associates URLs and IPAs, but rather Nazem uses conventional DNS services for associating the two. Nazem teaches away from the present invention.

When viewing Nezem drawing, it become clear that the functions upon which the rejections are based flow from functions of a plurality of web processors, including a browser, DNS processor, as well as web servers having unique functions. This is a gross application of forbidden hindsight reconstruction. It is not determinative that a DNS cross-references host names to IPAs, nor determinative that cache or memory is well know, but rather the invention must be viewed as a whole. In this regard, the independent claims have been modified so that each functional process steps occurs at a single proximal IPA, so that, the examination will cease from incorporating into this sole proximal IPA all of the functions that ever existed in connection with web.

In connection with the independent claims, Nezem specifically and particularly teaches a SYSTEM having various components including the browser, DNS and web servers interconnected across the internet, whereas, the present invention performs modified function all within a single process AT THE PROXIMAL IPA. Such a cross-referencing web cache AT THE PROXIMAL IPA is not remotely

suggested by Nezem. The comments, in the examination, in connection storing at a proximal IPA the forwarding table, that Nezem teaches IP addresses stored in a name server, equates a DNS server with the present invention, but a DNS server does not include a forwarding table that translate a URL to a distal IPA, but does include a translation from host name to the distal IPA.

In connection with claim 3 for another example, a DNS has never been used to store web content data, yet claim 3 calls out that the web content data is received at the proximal IPA as a proximal web cache. The examination equates a DNS with forwarding table, and with a web cache

The DNS does not receive, at the proximal IPA, a URL, but rather receives host names extracted by a browser and then cross-references the host names to a web IPA storing the web content data. A DNS is simply not a cross-referencing web cache.

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A DNS receives a host name from a browser, not a URL as the examination incorrectly suggests. The claimed process receives a destination URL for a source. A DNS transmits a destination IPA to a browser. The claimed transmits a URL to a destination IPA. A DNS does not cache web content data. The claimed invention as in claim 3 caches web content data. Yet, the basis for the rejections is Nezem and the conventional use of DNS. Looking to the examination comments on page 3, it is noted that for the 1) storing, 2) storing, 3) receiving) 4) cross-referencing, 5)and transmitting steps, the repetitive citation of Nezem and the DNS "name server" is abundant, yet, a DNS does not perform a single one of these functions. How possibly could Nezem be used to reject the present sent of claims is beyond comprehension as the examination did not in any meaningful regard rebut or counter applicant's last argument, excepting of course, the statement that "Applicant's arguments have been fully considered but they are not persuasive". The present invention does not use DNS in any regard, nor its well understood functions, and as such, Nezem is irrelevant and teaches away from the non-DNS use by the present invention, and the examination's reliance of Nezem is misplaced. Allowance of the claims is requested.

Respectfully Submitted

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